electro-harmonix

SUPER SWITCHER

Programmable Effects Hub

Congratulations on your purchase of the Super Switcher, a full-featured programmable effects hub that is capable of controlling your entire rig. The Super Switcher is able to handle jobs as simple as an effects loop switcher or as complex as a programmable effects loop preset designer. The Super Switcher can send tap tempo to other pedals, includes two general purpose control outputs, and features MIDI input and output allowing automated control over just about any MIDI device for nearly endless possibilities. Scratch the surface of tone shaping with the Super Switcher and achieve studio style effects programming that cannot be accomplished with traditional pedal set ups. No more tap dancing!

WARNING: Your Super Switcher comes equipped with an Electro-Harmonix 9.6DC-200BI power supply. The Super Switcher requires **150mA** at 9VDC with a center negative plug. Use of the wrong adapter or a plug with the wrong polarity may damage your Super Switcher and void the warranty. Do not exceed 10.5VDC on the power plug. Power supplies rated for less than 150mA will cause the Super Switcher to act unreliably.

FEATURES

- Programmable pedal switcher
- Mechanical relay switching for true bypass signal paths
- 8 FX loops (6 mono & 2 stereo)
- 16 Banks of 8 presets each
- Pedalboard controller with MIDI In and Out
- 1 hardwired insert loop between FX loops 5 and 6
- 2 Instant Access Modes allowing direct control over FX loops
- Stereo output boost
- Onboard Tap Tempo with TAP output
- Tuner output
- 2 general-purpose control footswitches

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NOTES AND SPECIFICATIONS

- Audio input impedance: 2MΩ (buffer or boost only)
- Audio output impedance for each output: 470Ω (buffer only)
- Audio output impedance for each output: 1KΩ (boost on)
- Current draw: 150mA
- Maximum input signal level: +11 dBu
- Bypass: Mechanical relay true bypass switching

CONTROLS AND CONNECTIONS

- INS, OUTS, SENDS AND RETURNS -

The Super Switcher has eight switchable effects loops, an insert loop, mono input and stereo outputs.

Mono Input: Connect your guitar or instrument to the IN jack.
Stereo Outputs: Connect your amp(s), other effects pedals or mixer to the OUT L and OUT R jacks. We recommend only using the L channels if working in mono throughout your signal chain.

Mono Effects Loops 1-6: Active when illuminated buttons L1-6 are lit.

- Effects loops 1-6 are mono loops arranged in series. Loops 1-6 correspond respectively to the illuminated buttons L1-6. When the illuminated button is lit, the corresponding effects loop is active and the signal is routed out the SEND jack and in through the RTN (return) jack.
- NOTE: If the loop is active with nothing plugged into it, the signal will be cut off and no sound will come out of the output.

Insert Loop: Always on, hardwired loop between effects loops 5 and 6.

- Series insert loop is placed between effects loops 5 and 6
- When nothing is plugged into the SEND and RETURN of the insert loop the signal bypasses the insert loop.
- If an effect is placed in the insert loop, the signal will always be routed through the effect.
- Perfect for always having manual control of a certain effect.
- Ideal for an always ON type of effect such as a volume pedal.
- The Insert Loop is active even when master bypass is engaged.

Stereo Effects Loops 7-8: Active when buttons L7-8 are lit.

- Effects loops 7 & 8 are stereo loops arranged in series. When either of their illuminated buttons are lit (L7-8), the corresponding effects loop is active.
- Loop 7 has a single, mono SEND jack.
- Loop 7 has separate left and right RTN jacks.
- Loop 8 has separate left and right SEND jacks.
- Loop 8 has separate left and right RTN jacks.
- Loop 7 or 8 can be used in mono: connect to only their L channels.

Bypass Switching: Analog, mechanical relay bypass switching.

- With no additional features enabled (buffer, boost, etc.) the Super Switcher features mechanical relay true bypass switching.

Master Bypass: The Super Switcher's CTRL 1 footswitch can be set up to engage master bypass. Master bypass connects the input signal to both OUT L and OUT R. The hardwired Insert Loop between Loops 5 & 6 is still active, even in master bypass.

- ILLUMINATED BUTTONS -

There are 10 illuminated buttons on the Super Switcher: L1-8, PC & CC.

L1-8 (Loop1 – Loop8):

- The illuminated buttons for loop 1-8 both control and display the on/off status of the corresponding effects loop.
- Pressing an illuminated button will light the button and enable the corresponding effects loop.

PC and CC Buttons: MIDI Program Change and Control Change.

- The illuminated buttons for PC and CC control the message transmit status for the Super Switcher.
- When the PC illuminated button is pressed the Super Switcher will transmit the associated Program Change information.
- When the CC illuminated button is pressed the Super Switcher will transmit the associated Control Change information.
- The PC and CC buttons are also used to edit MIDI messages.

- FOOTSWITCHES AND LEDS -

Footswitches 1-8:

- Footswitches 1-8 engage and disengage the corresponding presets 1-8 for the bank that is currently selected.
- In both Instant Access Modes: *IA* or *IA2*, footswitches 1-8 directly control the corresponding on/off status of effects loops 1-8.

Footswitches BANK UP and BANK DOWN:

- BANK UP and BANK DOWN footswitches increment or decrement through the preset banks. There are 16 banks each with 8 presets.

PRESET Footswitch:

- The PRESET footswitch toggles the Super Switcher between its normal Preset Mode and a manual mode called Instant Access Mode.

TAP Footswitch:

- Two or more presses on the TAP footswitch updates the BPM setting for the Super Switcher.
- The TAP footswitch also controls the tempo signal that is output from the TAP jack.

TUNER Footswitch:

- When the TUNER footswitch is pressed, the Super Switcher sends the IN signal directly to the TUNER jack.
- When TUNER is active, the Super Switcher's effects loops and outputs are muted.

BOOST Footswitch:

- The BOOST footswitch turns ON/OFF the stereo output boost.
- The BOOST circuit is after loop 8.

CTRL 1 Footswitch:

- The CTRL 1 footswitch can be used to switch amp channels, trigger remote effects etc.
- CTRL 1 can be set normally open or closed.
- CTRL 1 can be set to momentary or latching.
- CTRL 1 can be set as a master bypass button.

CTRL 2 Footswitch:

- The CTRL 2 footswitch can be used to switch amp channels, trigger remote effects, etc.
- CTRL 2 can be set to normally open or closed.
- CTRL 2 can be set to momentary or latching.

- BOOST AND VALUE KNOBS -

BOOST Knob:

- The BOOST knob is a manual analog control for the switchable stereo output clean boost.
- At fully counter-clockwise, boost is at unity gain. Turn up the BOOST knob for a volume boost.
- The maximum gain of the Boost circuit is +20dB.

VALUE Rotary Encoder Knob:

- The VALUE knob is a rotary encoder with a push button. This knob continuously turns in either direction. VALUE is used to navigate and edit the Super Switcher's menus.
- VALUE can be used to edit the BPM of the Super Switcher, change banks, navigate menus and change settings.

PRESET MODE

ENGAGE PRESETS

Preset Mode is the main default mode for the Super Switcher.

When in Preset Mode, the PRESET footswitch LED will be lit, and the character display will show the current BANK number.

In Preset Mode each footswitch: 1-8, engages or disengages the saved preset: 1-8 for the current bank.

SELECTING BANKS

To change the current bank press the BANK UP or BANK DOWN footswitch. VALUE can also be turned to change banks.

When a bank change is made, the bank number in the character display will begin to blink. The new bank is not active until you press the VALUE encoder button. The newly selected bank will load with no preset selected.

Alternatively, both a new bank and a preset can be loaded by pressing footswitches 1-8 while the bank numbers are blinking. The new preset will load and the display will stop blinking.

The display will also stop blinking if you return to the current bank without activating a new preset.

EDITING/SAVING PRESETS

The Super Switcher automatically saves any edits that are made to the current preset.

Presets are saved at the time you press footswitch 1-8. Whether you disengage the current preset or directly engage a different preset, any edits will be saved to the preset that was being worked on.

When a preset is engaged, press the illuminated buttons to enable or disable effects loops and MIDI messages. The control functions such as BOOST, CTRL 1 and CTRL 2 can also be saved per preset.

INSTANT ACCESS MODE

INSTANT ACCESS MODE 1

Instant Access Mode 1 is used to have instant access to all of the effects loops using the current preset as a basic set up.

ENTERING INSTANT ACCESS MODE 1: When a preset is active, pressing the PRESET footswitch will turn off the PRESET LED and the Super Switcher will enter Instant Access Mode. The Character display will read *IA*. The LEDs for footswitches 1-8 will change to mirror the illuminated buttons. If preset 01.1 had loops 4 and 6 engaged, in Instant Access Mode, the LEDs for footswitches 4 and 6 will light. The LED for footswitch 1 will turn off since that effect loop is not active.

MAKING CHANGES: Instant Access Mode can be used to quickly turn effects on and off within a current preset. Simply press the footswitch or press the illuminated button to engage or disengage the corresponding effects loop.

SAVING CHANGES: To save the changes made in Instant Access Mode to the current preset, press and hold the PRESET footswitch until the *IA* character display blinks for a second. Any changes made will be lost if Instant Access Mode is exited without saving.

EXITING INSTANT ACCESS MODE 1: To return to Preset Mode press the PRESET footswitch. Depending on whether the edits made in Instant Access Mode were saved, either the old preset will reload, or the new preset with the new changes will load.

INSTANT ACCESS MODE 2

Press the PRESET footswitch while no preset is active and the Super Switcher will enter the 2nd Instant Access Mode. *IA2* will show on the character display and the IA2 preset will be loaded. IA2 will auto save any changes made to the IA2 preset. There is only one IA2 preset and it can be called from any bank as long as no preset is active. To exit simply press the PRESET footswitch.

CONTROL FUNCTIONS

BOOST
The Super Switcher has a clean boost function that is placed after loop 8 at the output of the signal chain. The boost is stereo—using the boost function will not collapse a stereo signal to mono. The boost function can be turned on and off at any time by pressing the BOOST footswitch. The ON/OFF status of the boost function can be saved per preset but the amount of boost gain can only be adjusted by turning the BOOST knob. **The BOOST knob setting is not saved with presets**.

CTRL 1 & CTRL 2
The Super Switcher has two control functions that can be used as general-purpose switches. This is useful to change channels on amplifiers, turn amp reverb or tremolo on and off, or switch parameters on effects pedals remotely. The control functions can be configured as normally open or normally closed switches. Latching or momentary behavior can also be selected. The CTRL 1 function can also be set up to act as a master bypass for the Super Switcher's effect loops.

Engage/disengage the control functions by pressing the CTRL 1 or CTRL 2 footswitches. The control functions are always live and available. The control function ON/OFF status can be saved per preset. Each switches setup behavior is global for CTRL 1 and CTRL 2 and not saved with presets. **See SETUP MENU.**

TAP FOOTSWITCH & OUTPUT
The Super Switcher has an auxiliary output jack for tap tempo. This output can be configured to send out different signals based on the setup. **See SETUP MENU**.

When the *tAP* setting is set to *ON*, the Super Switcher automatically outputs updated tap signals based on adjusting the BPM with the VALUE knob or new tempo information from the TAP footswitch. The Super Switcher waits until a new BPM is set and then sends four tap pulses from the TAP output jack. If the Super Switcher is receiving MIDI clock, the TAP output will continuously send a tap signal at the same tempo as the MIDI clock.

When *tAP* setting is set to *OFF*, the TAP output directly mirrors presses to the TAP footswitch, behaving like a manual tap tempo footswitch.

MIDI CONTROL

PROGRAM CHANGE MESSAGES

The Super Switcher can send MIDI program change (PC) messages with preset changes. For each preset, the Super Switcher can send one program change message on any one channel or on all MIDI channels (OMNI).

ENABLE PC MESSAGE:

- With the required preset active, press and release the PC illuminated button to engage or disengage the PC message for the selected preset. When the button is lit, the PC message is enabled for the given preset so that each time the preset is recalled, the PC message is output from the MIDI OUT port.

EDIT PC MESSAGE & CHANNEL:

- With the required preset active, press and hold the PC illuminated button. The PC button will begin to blink and the character display will show *PCN*.
- *PCN* represents the PC message to be sent. Turning VALUE will show *ChL*, which represents the PC message's MIDI channel.
- With the character display showing *PCN*, press VALUE. The character display will show a three-digit number.
- Turn VALUE to select the PC message number. The range is 000-127.
- Press VALUE again to go back to *PCN*.
- Turn VALUE so the display shows *ChL*. Press and release VALUE.
- Turn VALUE to select the PC send channel. The range is 01-16 and *ONI* for Omni, which sends the PC message on all channels.
- Press and hold VALUE to exit PC message edit.

CONTROL CHANGE MESSAGES

The Super Switcher can send MIDI Control Change (CC) messages—aka continuous controller messages—with preset changes. For each preset, the Super Switcher can send one full CC message. The Super Switcher can send the message on any one channel or OMNI.

ENABLE CC MESSAGE:

- Press the CC illuminated button to engage or disengage the CC message for the selected preset. When the illuminated button is lit, the CC message is enabled and will be sent whenever the selected preset is recalled.

EDIT CC MESSAGE & CHANNEL:

- With the required preset active, press and hold the CC illuminated button. The CC button will begin to blink and the character display will show *CCN*.
- *CCN* is used to edit the CC number. Turning VALUE will show *CCU* to edit the CC value, and *ChL* to edit the CC send channel.
- With the character display showing *CCN*, press VALUE. The character display will show a three-digit number.
- Turn VALUE to select the CC number. The range is 000-127.
- Press and release VALUE again to go back.
- Turn VALUE so that the display shows *CCU*. Press and release VALUE to edit the CC message's value. The range is 000-127.
- Press and release VALUE again to go back.
- Turn VALUE so that the display shows *ChL*. Press and release VALUE to edit the CC message's MIDI channel. The range is 01-16 plus *ONI* for Omni, which sends the CC message on all channels.
- Press and hold VALUE to exit CC message edit.

MIDI RECEIVE

The Super Switcher can be controlled by other MIDI devices. **See SETUP MENU**. Global values for MIDI receive channel, MIDI thru and MIDI clock ON/OFF are available in SETUP.

The tables on the following page list the Program Change (PC) and Control Change (CC) messages that the Super Switcher responds to on its MIDI IN connector.

PC Messages: Use PC messages to directly load presets through MIDI. For example, if you want directly load preset 03.1, send PC 16.

CC Messages: Use CC messages to directly perform button pushes through MIDI. CC Values 0-63 send an "off" message, 64-127 send "on". We recommend interleaving on and off messages for the same button push.

PC RECEIVE MESSAGES:

PC Number	Preset
0	01.1
1	01.2
2	01.3
…	…
8	02.1
9	02.2
…	…
126	16.7
127	16.8

CC RECEIVE MESSAGES:

CC Number	Function
102	Loop 1
103	Loop 2
104	Loop 3
105	Loop 4
106	Loop 5
107	Loop 6
109	Loop 7
108	Loop 8
110	Boost
111	Tuner
112	Control 1
113	Control 2

SETUP MENU

GLOBAL SETTINGS

The Super Switcher has many global settings that help to maximize flexibility. Access the Global Settings menu by doing the following:

ACCESS AND NAVIGATE GLOBAL SETTINGS MENU:

- Make sure you are in Preset mode. The display should **not** show *IA* or *IA2*. If it does, press the PRESET footswitch.
- Ensure a preset is not loaded. For example, the display might show *01.2*. Unload the preset by pressing footswitch 2. Now the display shows *01._*.
- Press and hold the VALUE knob for a couple seconds. The character display will change to *bFr*.
- The Global Settings menu is now active.
- Turn the VALUE knob to scroll through all Global Settings headings, such as *bFR*, *bPn*, *tAP*, etc.
- Press and release VALUE to jump in and out of each setting.
- Turn VALUE to change the settings' value. Press and release VALUE to jump back up to the headings.

BUFFER SETTING (*bFr*):

- The *bFr* setting controls the status of the input buffer. This is a global setting and not per preset. The input buffer can help if long runs of cables are causing high-end loss, particularly between the Super Switcher and its effects loops or to an amplifier.
- Press and release VALUE to set the status of the buffer. Turn VALUE to select *ON* or *OFF*.
- Press VALUE knob to go back. Turn VALUE to show *bPN*.

BPM SETTING (*bPN*):

- The *bPN* setting controls whether newly received BPM information is applied globally to all presets or only to the selected preset.
- Press and release VALUE to set the status of the BPM setting. Then turn VALUE to select *LOC* or *GLO*.
- *LOC* setting only updates the selected preset. *GLO* will update the BPM of the entire Super Switcher.
- Press and release VALUE to go back. Turn VALUE to show *tAP*.

TAP SETTING (*tAP*):

- When *tAP* is set to *ON*, the Super Switcher automatically outputs tempo signals via the TAP output jack based on preset BPM or received MIDI clock. When *tAP* is set to *OFF*, the TAP output only sends signals that mirror presses of the TAP footswitch.
- Press and release VALUE to set the status of the TAP output. Turn VALUE to select *ON* or *OFF*.
- *ON* sets the TAP output to automatic; four tap signals will be sent out every time the BPM is updated. *OFF* will set the TAP output to work like a manual tap tempo footswitch.
- Press and release VALUE to go back. Turn VALUE to show *Ct1*.

CONTROL 1 SETTING (*Ct1*):

- The *Ct1* setting controls the function of the CTRL 1 footswitch.
- Press and release VALUE, the character display will show *NO*. Turn VALUE to select *NO* or *NC*. This is the switch behavior "normally open" or "normally closed". Normally open is most common. Press and release VALUE again to show *LAt*.
- Turn VALUE to select between *LAt* for latching, *NON* for momentary and *bP* for master bypass.
- Press and release VALUE to go back. Turn VALUE to show *Ct2*.

CONTROL 2 SETTING (*Ct2*):

- The *Ct2* setting controls the function of the CTRL 2 footswitch.
- Press and release VALUE and the character display will show *NO*. Turn the encoder knob to select *NO* or *NC*. This is the switch behavior "normally open" or "normally closed". Normally open is most common. Press and release VALUE again to show *LAt*.
- Turn VALUE to select between *LAt* for latching and *NON* for momentary.
- Press and release VALUE to go back. Turn VALUE to show *ChL*.

MIDI RECEIVE CHANNEL SETTING (*ChL*):

- The *ChL* setting controls the channel on which the Super Switcher receives MIDI messages.
- Press and release VALUE and the character display will show *1*. Turn VALUE to select the MIDI receive channel between *1-16* or *ONI* for omni.
- Press and release VALUE to go back. Turn VALUE to show *CLC*.

MIDI CLOCK SETTING (*CLC*):

- The *CLC* setting controls whether or not the Super Switcher sends out MIDI Clock information.
- Press and release VALUE and the character display will show *ON*. Turn the encoder knob to select *ON* or *OFF*.
- Press and release VALUE to go back. Turn VALUE to show *thU*.

MIDI THRU SETTING (*tHU*):

- The *thU* setting controls whether messages received on the Super Switcher's MIDI IN port are relayed to the MIDI OUT port.
- Press and release VALUE and the character display will show *OFF*. Turn VALUE to select *ON* or *OFF*.
- Press and release VALUE to go back.

EXIT SETUP MENU:

- At any time while editing the Global Settings menu, press and hold VALUE to save the current settings and exit Global Settings.

TEMPO MONITOR DISPLAY

In Preset Mode or Instant Access Mode press and release VALUE to enter the Tempo Monitor display, which displays the current BPM value.

The value can be fine-tuned by turning VALUE, or by pressing the TAP footswitch two or more times at the required tempo.

If the Super Switcher is receiving MIDI Clock, the displayed BPM value represents the received MIDI Clock tempo.

Press and release VALUE to exit the Tempo Monitor display or press footswitches 1-8 to exit and engage that preset. Pressing PRESET, TUNER, BOOST, CTRL1 or CTRL2 will also exit the Tempo Monitor.

RESTORING FACTORY SETTINGS

To restore the Super Switcher to factory default settings:

1. Unplug the Super Switcher from power.
2. Press and hold the CTRL 1 & CTRL 2 footswitches while plugging power back in to the Super Switcher.
3. The character display will read *E-H*.
4. Release the two Control footswitches.
5. Press the BOOST footswitch and the character display will read *rSt*.
6. Press the BANK DOWN footswitch. The Super Switcher will restore to factory settings and the character display will read *dUN*.
7. Unplug power from the Super Switcher and reapply power to perform a power cycle.
8. The Super Switcher factory settings are now restored.

WARRANTY INFORMATION

Please register online at http://www.ehx.com/product-registration or complete and return the enclosed warranty card within 10 days of purchase. Electro-Harmonix will repair or replace, at its discretion, a product that fails to operate due to defects in materials or workmanship for a period of one year from date of purchase. This applies only to original purchasers who have bought their product from an authorized Electro-Harmonix retailer. Repaired or replaced units will then be warranted for the unexpired portion of the original warranty term.

If you should need to return your unit for service within the warranty period, please contact the appropriate office listed below. Customers outside the regions listed below, please contact EHX Customer Service for information on warranty repairs at info@ehx.com or +1-718-937-8300. USA and Canadian customers: please obtain a **Return Authorization Number** (RA#) from EHX Customer Service before returning your product. Include—with your returned unit—a written description of the problem as well as your name, address, telephone number, e-mail address, RA# and a copy of your receipt clearly showing the purchase date.

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To hear demos on all EHX pedals visit us on the web at **www.ehx.com**
Email us at **info@ehx.com**

COMPLIANCE

Note: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help**.**

Modifications not expressly approved by the manufacturer could void the user's authority to operate the equipment under FCC rules.

CE The CE logo indicates that this product has been tested and shown to conform with all applicable European Conformity directives.